

DESIGN MEMORANDUM NO. 6-04

TO: Chief District Engineers
Design Engineers
Active Consultants

FROM: Gary W. Sharpe, P.E., Director
Division of Highway Design

DATE: April 5, 2004

SUBJECT: Right of Way Monumentation

WWS
By WWS

After July 1st 2004, any project that has not submitted right of way plans shall establish and monument the right of way boundaries for the entire project. On projects where little or no right of way is to be acquired, the Project Manager with the concurrence of the Director of Highway Design may elect to monument only the newly acquired right of way boundaries. Monumentation shall be placed in accordance with the **Standard Drawings** and the **Special Note for Right of Way Monuments** (See attached). Monumentation includes right of way monuments, right of way witness monuments, and witness posts. The intent is to define the right of way boundaries on our plans and in the field.

Right of way monuments and witness monuments shall be flagged on the plans sheets with station and offset, and they will be documented on the coordinate control sheets with northing, easting, station and offset. Coordinate control sheets shall be included in the right of way and construction plans.

All right of way monumentation shall be set under the direct supervision of a Kentucky Licensed Professional Land Surveyor.

All right of way monuments shall be set at the earliest opportunity on a project as determined by the Project Manager (typically after right of way is acquired). Where there is a high probability that a right of way monument will be disturbed by construction, consideration should be given to placing a witness monument outside the disturbed area. In extreme cases, the omission of one right of way monument is permissible. In no case shall two consecutive monuments be omitted.

All right of way monumentation (including witness monuments) shall be established from the monumented control with an accuracy of 1:15,000 or greater. No right of way monuments shall be permanently set until the primary or supplemental control monuments are established and meet or exceed the accuracy required for survey control monumentation.

All right of way monumentation shall be defined by the Kentucky State Plane Coordinate System, using project datum coordinates.

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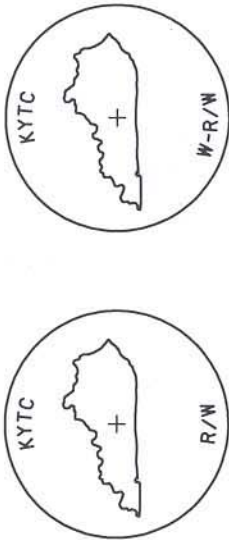
A project datum factor that relates the State Plane Coordinates and project datum coordinates for the right of way shall be published on the design plans.

To aid others in the field location of the right of way or witness monuments, a 6-foot orange witness post will be used. The witness post is to be set within 1 foot of the monument location and shall be set on the property of the Transportation Cabinet. The witness post shall have a label recognizing that the point is Kentucky Right of Way.

Any questions regarding this memorandum should be directed to this office.

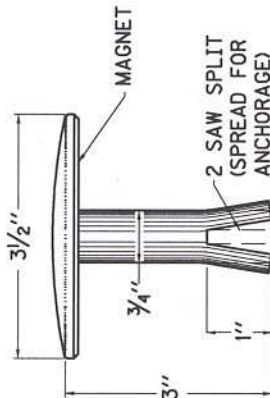
GWS:JDJ:jg

Attachments (3)

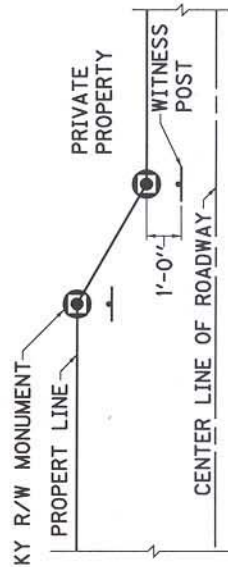


R/W MONUMENT TYPE 1 OR 1A

WITNESS R/W MONUMENT TYPE 2



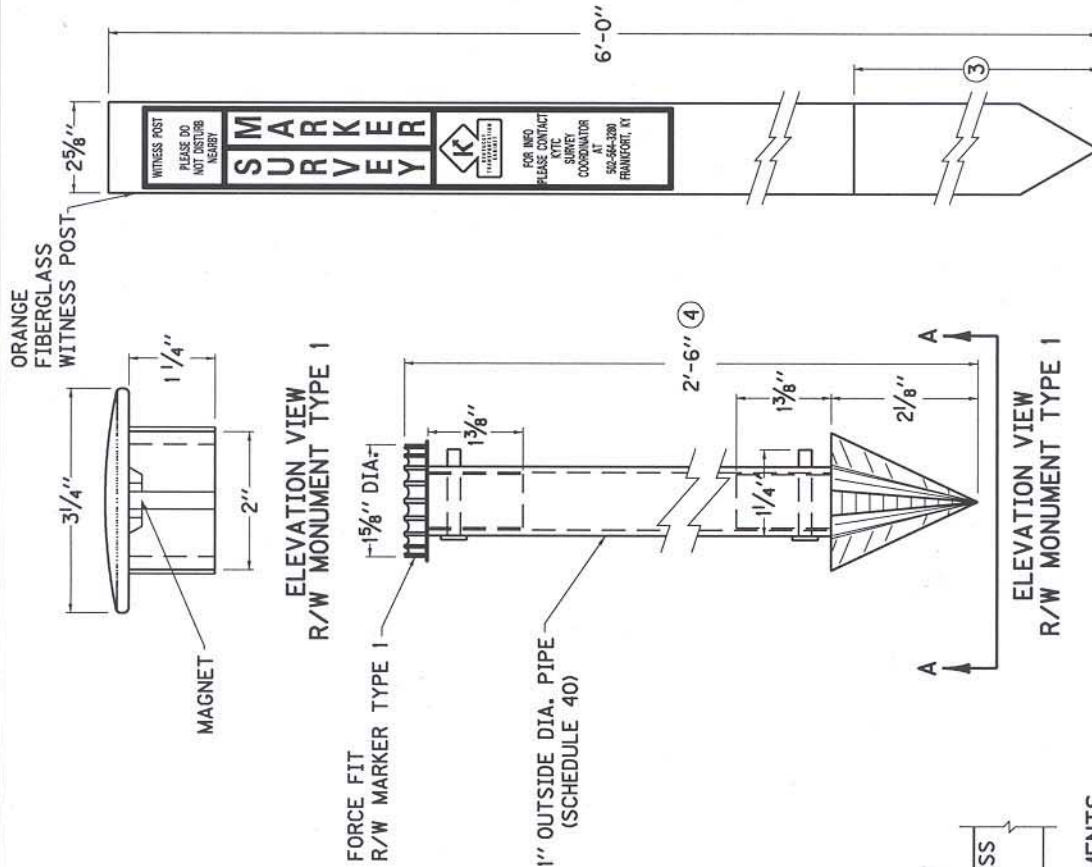
ELEVATION VIEW R/W MONUMENT TYPE 1A



LAYOUT OF RURAL RIGHT-OF-WAY MONUMENTS

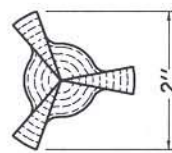
NOTES

1. MANUFACTURE R/W MONUMENTS FROM ALUMINUM ALLOY.
2. TYPE 1A MARKERS SHALL BE MOUNTED FLUSH IN EXISTING PAVEMENT, DRAINAGE BOXES, ETC. DRILL A 1/16" DIAMETER HOLE AND EPOXY (COMMERCIAL GRADE) INTO EXISTING CONCRETE.
3. WITNESS POST SHALL BE BURIED 1'-6" TO 2'-0" IN GROUND.
4. WHEN ROCK IS ENCOUNTERED LENGTH MAY BE REDUCED.
5. SET ALL R/W MONUMENTS FLUSH WITH GROUND OR ADJOINING SURFACE.

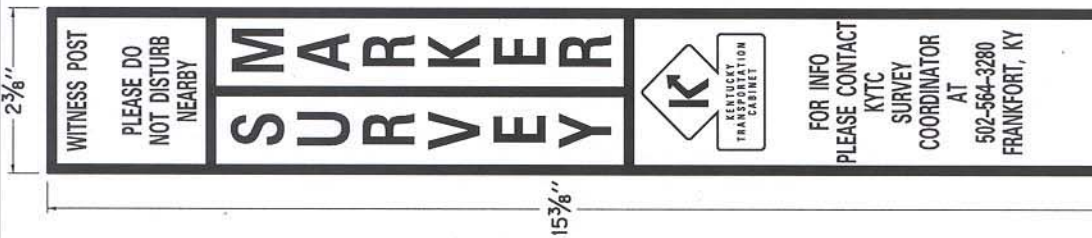


ELEVATION VIEW R/W MONUMENT TYPE 1

ELEVATION VIEW R/W MONUMENT TYPE 1



SECTION A-A



WITNESS POST DECAL

KENTUCKY DEPARTMENT OF HIGHWAYS	
RIGHT-OF-WAY MONUMENTS	
SUBMITTED <i>Tommye</i> 4-05-04 DATE	

SPECIAL NOTE FOR RIGHT-OF-WAY MONUMENTS

This Special Note will apply when indicated on the plans or in the proposal.

1.0 DESCRIPTION. Furnish and install right-of-way monuments at the location and with the type shown on the plans.

2.0 MATERIALS. Furnish Aluminum Alloy monuments specified on the Standard Drawing.

3.0 CONSTRUCTION. Install right-of-way monuments at the earliest opportunity on a project as determined by the project manager. Install right-of-way monuments under the direct supervision of a Kentucky Licensed Professional Land Surveyor.

Establish right-of-way monuments from existing Primary or Supplemental control monuments with an accuracy of 1:15,000 or greater.

Place right-of-way monument information on a Control Monument Information Sheet (Exhibit 300-04 of the Highway Design Manual) provided by the Department. Place the completed Control Monument Information Sheet in a final survey report. Completely fill out the Control Monument Information Sheet, including the signature and registration number of the Kentucky Licensed Professional Land Surveyor in charge of the monumentation. Submit the Final Survey Report to the KYTC Survey Coordinator in the Division of Highway Design and the Engineer.

Reset all monuments disturbed or destroyed during or prior to construction, with the same accuracy as stated previously. Update the Control Monument Information Sheet with any new data and include in the Final Survey Report. Ensure the Kentucky Licensed Professional Land Surveyor in charge of the re-monumentation signs and places his registration number on the updated Control Monument Information Sheet. Submit the updated Final Survey Report to the KYTC Survey Coordinator in the Division of Highway Design, the Engineer, and the Kentucky Licensed Professional Land Surveyor who set the original monuments.

Right-of-way monuments that cannot be established at the planned location due to inaccessibility should be witnessed by a witness right-of-way monument on both lines and labeled as such (see Standard Drawing).

Use a 6-foot long orange witness post to aid in locating right-of-way monuments. Set the witness post within the public right-of-way and within one foot of the monument location. Label the witness post to denote that the point is KYTC right-of-way (See Standard Drawing).

4.0 MEASUREMENT AND PAYMENT. The Department will measure the quantity by each individual unit.

5.0 PAYMENT. The Department will make payment for the completed and accepted quantities under the following:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
2429	Right-of-Way Monument, Type 1	Each
2430	Right-of-Way Monument, Type 1A	Each
2431	Witness R/W Monument Type 2	Each
2432	Witness Post	Each

Control Monument Information Sheet

EXHIBIT 300-04

Kentucky Transportation Cabinet Department of Highways Division of Highway Design Survey Coordination

SITE/QUAD	STATION DESCRIPTION (COMPLETE DESCRIPTION REQUIRED) (TYPE, SIZE, DEPTH SET, etc.)		STATION DESIGNATION		
LOCALITY/COUNTY			STAMPING ON MARK		
DATE SET OR FOUND (DATE, with S or F)	LATITUDE	LONGITUDE	HORIZ. DATUM	ZONE	VERT. DATUM
	NORTHING (STATE PLANE) (US SURVEY FEET)	EASTING (STATE PLANE) (US SURVEY FEET)	ELEVATION	(UNDERLINE ONLY ONE) GPS DERIVED DIFF. LEVELS	ORDER ACCURACY
PERSON FILLING OUT FORM	NORTHING (PROJECT DATUM) (US SURVEY FEET)	EASTING (PROJECT DATUM) (US SURVEY FEET)	GEOID MODEL	ELLIPSOID HEIGHT	OTHER INFO.
ESTAB. BY AGENCY	PROJECT FACTOR	BACK STATION I.D.	GROUND AZIMUTH & DISTANCE TO BACK STATION		
SCALE FACTOR	ELEVATION FACTOR	AHEAD STATION I.D.	GROUND AZIMUTH & DISTANCE TO AHEAD STATION		

KENTUCKY REGISTERED LAND SURVEYOR
IN CHARGE OF MONUMENTATION

KY. REGISTRATION NO.

GIVE A COMPLETE SKETCH AND LOCATION DESCRIPTION SO MONUMENT MAY BE RECOVERED BY OTHERS